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Female Breast Cancer Incidence, Stage at Diagnosis, Treatment, and Mortality in North Carolina

by

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ABSTRACT

Objectives: Female breast cancer is the most commonly diagnosed cancer in North Carolina. It also accounts for the second largest number of cancer-related deaths among women. The objective of this study is to examine recent breast cancer incidence, stage at diagnosis, treatment, and mortality differences between white and African American women in North Carolina. Also, trends in incidence and mortality are examined for the 1990 to 2002 period.

Methods: Data on North Carolina breast cancer cases were obtained from the North Carolina Central Cancer Registry. Data on breast cancer deaths were obtained from the vital statistics unit of the State Center for Health Statistics. Population data from the National Center for Health Statistics were used in the denominators of the rates, which are expressed per 100,000 population. Rates were age-adjusted to the 2000 United States population. In-situ, localized, regional, distant, and unknown categories were used for defining cancer stage. Information about breast cancer treatment was categorized into surgery, chemotherapy, hormone therapy, and radiation therapy.

Results: The age-adjusted breast cancer incidence rate for white women in North Carolina is 1.1 times the rate for African American women. However, the age-adjusted breast cancer death rate for African American women is 1.5 times the rate for white women. Much of this difference is due to African American women being substantially more likely than white women to have breast cancer diagnosed at the regional or distant stage. Mortality is higher when breast cancer is diagnosed at a later stage. African American women were somewhat less likely to receive hormone therapy and more likely to receive chemotherapy than white women, regardless of the stage at diagnosis. Breast cancer death rates declined somewhat for both white and African American women from 1990 to 2002.

Conclusions: The results suggest the need for increased preventive breast cancer screening for African American women, so that more cancer cases can be diagnosed at an earlier stage, as a means of reducing racial disparities in breast cancer mortality. The decline in death rates for both white and African American women suggests earlier diagnosis of breast cancer and more effective treatment for all women in recent years.

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